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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,081	08/26/2003	Wei Xiong	020340	4919
23696	7590	03/01/2006	EXAMINER	
QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			WEST, LEWIS G	
			ART UNIT	PAPER NUMBER
			2682	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/649,081	<b>Applicant(s)</b> XIONG, WEI	
	<b>Examiner</b> Lewis G. West	<b>Art Unit</b> 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-8, 10-28 and 30-36 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 9, 20 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### *Drawings*

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

The disclosure is objected to because of the following informalities: The proper way to identify IEEE standards is to include the entire IEEE identifier, for example IEEE 802.11(a). Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 20 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 9, 20 and 29 applicant claims "an 802.11 standard". This is indefinite, because although there are multiple IEEE 802.11 standards, applicant must clearly set forth full identifiers for standards that are claimed, as generically claiming 802.11 goes beyond the scope

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of what is specified, because at least IEEE 802.11(d), IEEE 802.11(h) and IEEE 802.11(i) are not provided for in the specification.

***Allowable Subject Matter***

Claims 1-8, 10-19, 21-28 and 30-36 are allowed.

Claims 9, 20 and 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding claim 32, the broadest independent claim, it was known in the art at the time of the invention to have an radio frequency transceiver with transmit and receive paths connected to respective transmitter and receivers for the purposes of conveying respective transmit and receive signals. It was also known to switch between transmit and receive paths in order to accommodate two way signaling in a single device, and further it was known to direct a transmit signal into the receive path of a transceiver for the purpose of testing the device, and also Frlan shows path switching of a transmit and receive path for channel swapping (See Frlan (US 6,047,178) Col. 7 lines 55-Col. 8 line 9, as well as Fig. 3). The prior art does not, however, fairly teach or suggest the specific structure as follows: an RF transceiver comprising: a receiver signal path used to receive an RF input signal; an RF receiver coupled to the receiver signal path for converting the received RF input signal to a baseband signal; an RF transmitter for converting a received input baseband signal to a transmitting RF signal; a switch for receiving and directing the transmitting RF signal, the switch having a first terminal coupled to the RF transmitter, a second terminal coupled to the receiver signal path and a third terminal, and the switch switching

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between the second terminal and the third terminal to connect to the first terminal; a transmitter signal path used to transmit the transmitting RF signal, the transmitter signal path coupled to the third terminal of the switch, wherein the switch switches to the second terminal to direct the transmitting RF signal to the receiver signal path in response to a first command. When viewing the claimed invention as a whole, incorporating all the limitations of the claim, none of the prior art teaches or fairly suggests the features as claimed.

Claims 33-36 depend directly or indirectly from allowable claim 32. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art teaches or fairly suggests the features as claimed.

Independent claim 1 includes similar structural limitations to those indicated as allowable in claim 32, further including a modem, which is a more specific type of transceiver that also functions as a controller, in this case to control switching to bypass the amplifier. Though amplifier bypass switching is taught by the prior art, see for example Figures 1 and 3-11 of Aihara (US 5,909,643), when viewing the claimed invention as a whole, incorporating all the limitations of the claim, none of the prior art teaches or fairly suggests the features as claimed.

Claims 2-8, 10 and 11 depend directly or indirectly from allowable claim 1. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art teaches or fairly suggests the features as claimed.

Independent claim 12 includes similar structural limitations to those indicated as allowable in claim 32, further including a controller for sending commands to the switching means. When viewing the claimed invention as a whole, incorporating all the limitations of the claim, none of the prior art teaches or fairly suggests the features as claimed.

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Claims 13-19, 21 and 22 depend directly or indirectly from allowable claim 12. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art teaches or fairly suggests the features as claimed.

Independent claim 23 includes similar structural limitations to those indicated as allowable in claim 32, further including a second switch and it's related structure and connections. When viewing the claimed invention as a whole, incorporating all the limitations of the claim, none of the prior art teaches or fairly suggests the features as claimed.

Claims 24-28 and 30-31 depend directly or indirectly from allowable claim 23. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art teaches or fairly suggests the features as claimed.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Xiong (US 2004/0077316) also deals with power control in a transceiver and has common inventorship. Abuataleb (US 2004/0198237), Ge (US 2004/0137854), Oda (US 6,591,087), Frlan (US 6,047,178) Aihara (US 5,909,643) and Cho (US 6,397,090) are cited as relevant to the art of amplification and path switching in the field of radio transceivers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lewis West  
(571) 272-7859